parks will provide valuable information that can help inform park management decisions. Numerous "vital signs," have been identified as relevant and cost-effective for providing us with more information about the condition of Lake Roosevelt's natural resources. Data collection relating to several of these vital signs will be starting this summer. Read more about these projects below or visit our website at www.nature.nps.gov/im/units/ucbn/lndex.htm for more information.

# Mapping Vegetation will Help Predict Exotic Plant Invasions

Fieldwork will begin this summer to map vegetation on park lands. Mapping existing vegetation will provide valuable information that can be used by park managers. Maps will be used is to identify where exotic plants

Did you know that ospreys are found on every continent except Antarctica? They are easy and fun to watch, as they build large stick nests on trees, telephone poles, or just about any place that is a good for watching for fish. Ospreys have been selected as a key indicator of conditions at Lake Roosevelt for two primary reasons. The first relates to how ospreys might be affected by increased interaction with people due to the high level of boater recreation on Lake Roosevelt. The second reason involves ospreys' food. About 99% of an osprey's diet is fish! They are therefore susceptible to any potential second-hand environmental contaminants coming up through the food chain. Their eggs are particularly sensitive to pollutants. In fact, osprey chicks are far less likely to successfully hatch if significant levels of contaminants are present in their parents' food.

stances like PCBs monitoring of osp better understand made their way understand food chain in Lak derstand if greate affecting osprey

# America The Beautiful The National Parks and Federal Recreational Lands Ann

Beginning January 1, 2007, a new federal fee program was implemented for most federal land management agencies, including the National Park Service. The majority of the revenue generated by sales of the passes will be reinvested to enhance the sites selling them. The inaugural program features several new passes, however, all current valid Golden Age, Access, and Eagle and National Park passports will continue to be honored.

The America the Beautiful - The National Parks and Federal Recreational Lands Annual Pass (\$80) replaces the discontinued Golden Eagle and National Park Pass. The Volunteer Pass (free), is a new annual pass earned by individuals contributing over 500 hours of volunteer service on federal public lands and has the same benefits as the

Annual Pass. Both cover entrance fees or standard amenity fees at any National Park Service, Fish and Wildlife Service, Bureau of Land Management, U.S. Forest Service, or Bureau of Reclamation site; they do NOT cover expanded amenity fees such as camping, boat launch, tours, etc. These passes are non-refundable, non-transferable, and are valid for 12 months from the month the pass is issued.

The new Senior Pass (\$10) which has replaced the Golden Age Pass remains the lifetime pass available to U.S. residents aged 62 or older. The Access Pass (free) replaces the Golden Access Pass available to U.S. residents with permanent disabilities. These passes entitle the owner to the same benefits as the Annual pass, but with the added advantage of discounts on some expanded amenity fees. At Lake Roosevelt

that includes 50% fees.

Each year the An Grand Prize winn the Experience Pt (www.sharetheex photo from your could be featured

Passes can be pu U.S. Geological S federal recreation mind, your purch at the point of sa

# Park Information ...... 2

Where are the visitor centers? When are they open? How much does it cost to camp or launch a boat? Do I need a fishing license?

Page two to has the details.

Safety ..... 4

Going boating and need to know what's required on Lake Roosevelt? Wondering where you can hunt in the Recreation Area?

The answers are on page four.

# Things to Do..... 5

When and where are the ranger programs? Where do I get a Junior Ranger paper? Where can I hike in the park? Are there any special events going on in the park? Find the answers on page five.

Parl Parl Geo Nat Cul Did

Faci

www.nps.gov/laro\_\_

- The rest are first-come, first-served. Call the reservation number below.
- Campsites must be reserved seven days in advance and there is a twonight minimum stay; three-night minimum stay during holidays.
- No hookups or showers in any of the NPS campgrounds.
- Crowded conditions exist in some campgrounds—so plan ahead.

## **Groupsites and Reservations:**

- Groupsites by reservation only, with \$9.00 reservation fee.
- For reservations call toll free 877.444.6777, TDD 877.833.6777, International 518.885.3639 or on-line at <a href="https://www.Recreation.gov">www.Recreation.gov</a>

### Beach Camping:

- No camping fee at boat-in-only campsites.
- No beach fires on the exposed lakebed or beaches managed by the National Park Service between May 1 and November 1. This season coincides with an increased potential for wildfires, which cause the loss of park resources and endanger the property of our park neighbors.
- Marine sanitation devices (MSDs) are required for anyone camping from or aboard a boat. Because plastic bags clog and cause portable toilet dump stations to fail, homemade devices such as plastic baglined buckets or cans are not acceptable alternatives. Plastic bags or other containers contaminated with human waste cannot legally be disposed of in dumpsters.

# Dispose of All Waste Properly

Dumping ANYTHING—including human or pet waste—on the shores or in the waters of Lake Roosevelt is **illegal** and unsanitary.

- Purchase annual permits in person at the North and South District Offices.
- By mail: Send a stamped, self-addressed mailing address on this page with a perso payable to the National Park Service. Include Beautiful Senior or Access Pass number if discount.

# Fishing Licer

Children 14 and younger may fish without a fishing license is required for all others to fishores of Lake Roosevelt National Recreation waters of Lake Roosevelt outside of the recommany be required in addition to a Washington Contact the Washington Department of Fish 7750 and the Colville Reservation (509) 63 Reservation (509) 258-7750 for tribal license

# **America the Beautiful Senio**

The America the Beautiful Senior and Access and Golden Access Passports) are lifetime ent monuments, and other areas administered by passport also entitles the holder to a 50% dis Roosevelt's boat lauches and campgrounds.

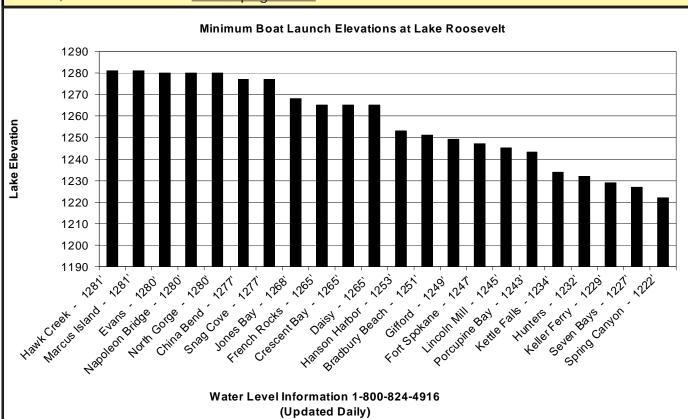
America the Beautiful Senior Passes are ava

permaner older for the Beaut free of ch permaner permaner may be o Information

Passes ca must be park.

### **Boat Launch Elevations**

Seasonal fluctuations regularly affect lake levels and access to boat launch facilities at Lake Roosevelt. For current lake elevation, call the Bureau of Reclamation at 800.824.4916 or visit <a href="https://www.nps.gov/laro">www.nps.gov/laro</a> It can be dangerous to boat without an accurate navigational chart. You can purchase them at the District Offices, Visitor Information Centers, or by calling 509.738.6366 ext.115, or on the web at <a href="https://www.nps.gov/laro">www.nps.gov/laro</a>



www.nps.gov/laro -

Janice\_Eiviage@nps.gov, 509.633.9188 ext.12.

### Landforms in the Sand: The Geology of Lake Roosevelt

Grade: 3rd-HS Chaperone Ratio: 1:10

Group Size: Minimum 10 / Maximum 60

**Program Times:** Depends on location

**Program Length:** 1 hour

**Program Type**: In-Park or In-Class **Program Rqmts:** Nearly any location that has a water spigot within 75 feet of a sandy beach.

**Program Overview:** Discover the amazing geologic forces that shaped the landscape in the Lake Roosevelt area. This program features students creating a landscape complete with a flowing river and discovering what the force of water can do to a landscape.

### Land of Many Opportunists: The Game of Species Survival

Grade: 4th-12th

as a species.

Chaperone Ratio: 4 adults who can help
Group size: Min. 8/ Max. 60 (40 ideal)
Program Times: Depends on location

Program Length: 1.5-2 hours
Program Type: In-Park or In-Class

Program Rqmts: Outdoor area where the grass is very thin; dirt area with some small gravel size rocks OK. The ground needs to camoflauge dried beans, but not bury them. Minimum 60 foot square area. Program Overview: Students will learn how aggressive exotic species take advantage of a wide range of resources in order to expand their range and compete in a nonnative habitat. This program features a relay action game. Each team represents an animal in our natural world and will try to survive

### Fort Spokane: A Cultural Crossroads

**Grade:** 3rd–5th and 6th–8th

Chaperone Ratio: 1:10

Group Size: Minimum 10 / Maximum 60

**Program Times:** 9:30 AM -12:00 1:00 PM - 3:30 PM

Program Type: In-Park

**Program Overview:** Explores why the fort was established by the military, why and how it was subsequently used as an Indian boarding school and later a tuberculosis hospital. The program includes a teacher guide, pre-visit classroom lessons, rangerconducted and self-guided lesson activities while visiting Fort Spokane, post-visit materials and a virtual tour web component.

### **Mission Point Tour**

Grade: 4th and 5th

Chaperone Ratio: 1:10

**Group Size:** Minimum 10 / Maximum 40

Program Times: Morning/afternoon

Program Length: 1.5 hours
Program Type: In-Park

**Program Overview:** The arrival of fur traders and trappers at Kettle Falls was a sharp turning point in history, changing the culture and landscape of the local tribes dramatically in a very short time period. Includes a guided walk from the Historical Museum to St. Paul's Mission and around Mission Point with scenic views of Lake Roosevelt.

### "The River Mile" Pilot Program

Grade: High School

Chaperone Ratio: 1:10

**Group Size**: Minimum 10 / Maximum 20

(per houseboat trip)

describing. Students status of the Americ three reasons for the tion under the Environment to the tion under the Environment the tion under the Environment to the tion under the they can obsettell them which bird Sponsored by:

Grand Coulee Chair Grand Coulee Balo

Fur Tra

Grade:

Chaperone Ratio Group Size: Program Times:

Program Length: Program Type:

Program Overvier culture to culture to culture all seem to need of view of what life will life will life will life will life be standing about differents will be all trappers/traders so the most valuable fashion is still a state example of a statu

continued on pag

1800s European c

culture and give of

of the fur trade ch

way of life at the I

# Washington State Mandatory Boating Safety Educa

According to the 2005 US Coast Guard Boating Statistics, the latest available, Washington State reported 128 boating accidents putting the state as 10th highest in the country in reported accidents. Twenty five of those accidents were fatalities and 82 people suffered serious injuries, ranking Washington sixth for boating deaths. These are not statistics to be proud of, especially since Washington only rated 16th for registered boats.

In the hopes of reducing boating accidents Washington residents, starting January 1, 2008, will be required to obtain a Boater Education card before they may legally operate a boat in this state. To obtain the card boaters can take an education course in a classroom, online or at home.

Does education work? Statistics from the 2005 US Coast Guard report show that 72% of the boat operators involved in accidents had not taken any type

of boating safety course. The operators that reported taking a state boating course prior to the accident accounted for only 6% of the accidents. Perhaps those taking the course are naturally more cautious or maybe education does work–probably both.

This law does not require everyone to have a boating card in 2008. The program is designed to be phased in over time by your age, starting with the youngest to the oldest. If you were born before 1/1/55 you are exempt. The phase–in period for all boat operators to obtain a card begins January 1 of each of the following years for the designated ages:

1/1/08 – 20 years old and younger

1/1/09 – 25 years old and younger

1/1/10 – 30 years old and younger

1/1/11 - 35 years old and younger 1/1/12 - 40 years old and younger

1/1/13 - 50 years old and younger

1/1/14 - 60 years ol 1/1/15 - 70 years ol 1/1/16 - All boat op

The life-time Boater replacement card is non-Washington State a vessel within V 60 consecutive days visit the Washington site at www.parks.w

- Children 12 and under are required to wear US Coast Guard approved life jackets.
- 3) All gasoline engines except outboard engines.
- 4) Must use navigation lights between sunset and sunrise.

PFDs must be readily accessible for each person in the watercraft.

# The Worst Way to Meet a Protection Ranger at Lake Roosevelt NRA

Listed below are some of the rules and regulations for which visitors are most often cited at Lake Roosevelt.

### **FIRES**

Lighting or maintaining fires anywhere but designated areas such as:

- Campsites where fire receptacles are provided by the NPS.
- The exposed lakebed from **November 1 to May 1**, when the fire danger rating for the park is at or below level 2.
- The shoreline or exposed lakebed from May 2 to October 31.

Not using approved receptacles such as:

- Park provided fire grates.
- Portable Propane Campfire units that are UL approved.

Not adhering to the following established conditions for fires when and where allowed:

- Fire size must be less than three feet in diameter.
- Fires must be at least 10 feet from the nearest beach logs, structure or vegetation.

### **HUNTING**

- Within ½ mile from developed areas.
- Out of state authorized hunting season and without proper permits/licenses in possession.

### **FIREWORKS**

Use or possession of fireworks.

### **REFUSE**

- Not using a required marine sanitation device (MSD) when camping from a boat.
- Disposing of human waste from MSD's into restroom facility toilets, trash receptacles, or in any other manner.
- Littering.

### **DESTRUCTION OF RESOURCE**

- Disturbing, defacing, removing, or digging upon natural, cultural and archeological resources within the recreation area.
- Off road driving.
- Using a metal/mineral detector.

### **PROPERTY**

- Leaving property unattended for longer than 24 hours.
- Retaining (anchoring) a vessel on the waters of the recreation area for more than 30 days per year, unless in a marina.
- Leaving mooring buoys or shore anchors when a vessel is not attached.

### **BOAT LAUNCHING**

- Not using designated launch sites to launch or recover vessels.
- Not displaying annual passes in the lower, driver side, front windshield of towing vehicle.
- Operating a vessel with a noise level over 82 decibels when measured from 82 feet away.

### **PETS**

- Having a pet off leash.
- Not cleaning up after a pet.
- Leaving a pet unattended.

See Park Superintendent's compendium or bulletin boards for specific regulations.

into play. The emissions alo being dragge far back as 20 self in the da CO poisoning confusion, na breath, or de age can also

- Teak surfers r to CO poison surfers say th (PFD) because Once they sta confusion, the carbon mono swim. Even if most of the c designed to t person's face ine the arm s to a speeding when you ge still have eno keep yourself child? Childre
- 3. Propellers do the water to can also do a through your your body too you have eve been cut by a want to get to

surfing while

- 4. Head injuries stops too quire going. There in Lake Roose and it stops existed is long enough their head into This could call injury; let alor scious and dr
- 5. It's the LAW! haven't convisurfing, then etary fine car

www.nps.gov/laro =

out on the parade grounds! Call 509.633.3830 for more information.

# **Paddle Days**

Saturday, July 21, 11 a.m. to 3 p.m.

Free lessons in canoeing, kayaking, sailing, snorkeling and much more. Bring sunscreen and wear swim clothes. Call 509.738.6366 ext.115 for details. Located at Colville Flats four miles south of Kettle Falls.

# Fur Trade Encampment

Saturday - Sunday, July 28 & 29

Join the National Park Service and the Kettle Falls Historical Society in welcoming the Friends of Spokane House for a weekend of living history. The Friends will set up an 1840s style fur trade encampment at historic Mission Point, Kettle Falls. Call 509.738.6266 ext. 115 for details.

## Meteor Overnight Canoe Trip Saturday-Sunday, August 11 & 12

The Perseid Meteor Shower is best experienced in a dark quiet campground after 11 p.m. Join park rangers on an overnight canoe trip for the event. **Must RSVP**. Call 509.738.6366 ext. 115 to RSVP.

walking trails that will take you back in time so you can explor of the lake or simply enjoy the beauty of its diverse scenery an

Mission Point Trail: A crossroads of time and cultures. For n have been drawn to Kettle Falls for survival, commerce and red Mission stands where it did over a hundred years ago—a remir have crossed at Mission Point. A ¼-mile trail, one mile from the has signs explaining the history of the falls, the mission, and the influence on the area. The view of the river is rivaled only by the find along the trail.

Old Kettle Town Site Trail: Like a specter from the past, the old Kettle Falls town site still lingers in the imagination of many who visit. Walking the locust-lined sidewalks past the lonely foundations and steps to a now vanished house brings visions of a once thriving community. The one-mile trail, starting at the Kettle Falls Information Station, offers a chance to see how nature takes back her space. As you meander down to the swim beach and playground, it's not unusual to see a great blue heron take flight from the marsh, or ospreys and bald eagles soaring overhead.

**The Sentinel Trail:** For 20 years, Fort Spokane was a lonely of as a barrier between the Indian reservations and the encroacher demise of the fort in the 1890s brought about a second life foundian boarding school and then a tuberculosis hospital. Along

give clues to how people lived here for almost 50 years. For the adventurous, the trail climbs approximately 30 bluff, providing you a spectacular view of the fort grounds and the confluence of the Columbia and Spokane about Fort Spokane is available.

**Bunchgrass Prairie Nature Trail:** At Spring Canyon Campground you are in a Bunchgrass Prairie commun Sonoran life zone. The area is characterized by cold winters and hot, dry summers. The balance of life in these delicate. In the Bunchgrass Prairie, moisture is scarce—rain filters rapidly through the sandy soil, leaving no sur the plants can immediately absorb. As you walk along the trail you will discover wild roses, rock-eating lichen that call the grasslands home. A free trail guide is available at the beginning of the trail for you to use.

# Hey Kids! Here is your chance to become a Junior Ranger

To begin your Junior Ranger training:

- 1. Pick up a free Junior Ranger newspaper at Spring Canyon, Fort Spokane or Kettle Falls Visitor Cen campground host or a Ranger on the water.
- 2. Follow the directions in the paper and complete the activities.
- 3. Hike a park trail located at Spring Canyon, Fort Spokane and Kettle Falls or walk along the beach parents.
- **4.** Attend a ranger program at one of the larger campgrounds of Lake Roosevelt during the summer campground bulletin board for dates and times of programs near you.
- 5. When you're finished, take your newspaper to a visitor center or the campground host to be check receive your free Junior Ranger Patch.

You're now a Lake Roosevelt Junior Ranger for life!

- Flood sands. It is at the border between the steppe desert and the forested Okanogan highlands.
- A short distance (up to 30 minutes depending on the speed of your boat) from 7 Bays.

### **Crystal Cove** (Spokane River)

- Only one site.
- Some shade, next to a very steep forested hill.
- Often occupied. Located in a very busy part of the Spokane Arm so boats are zooming by often.
- Mostly sandy, but the beach area is small.
- Fairly easy boat tie-off area, with deep water right off shore. Some submerged rocks near the shore on either side of sandy area.
- One toilet.
- View across to undeveloped portion of the Spokane reservation.
   Located on a north facing slope therefore cooler and thicker mixed conifer forest.
- Only a few minutes from Two Rivers/Fort Spokane, up to 10 minutes by houseboat.

### Ponderosa (Spokane River)

- · Four sites.
- Lots of shade, one site on the beach.
- Moderately busy, seldom full. A lot of boat traffic.
- Very nice, sandy beach.
- Long distance to trees for boat tie-off when water isn't at full pool.
- · One toilet.
- Long views to the east or west depending on site, view across to relatively undeveloped Spokane Reservation side. Thick ponderosa forest on glacial lake sands. Nice exposures of ripped up parts of lake sediments by Missoula Floods.
- McCoy's marina almost across from it, only a few minutes from Two Rivers/Fort Spokane, up to 15 minutes by houseboat.

#### Detillion

- Four to five sites.
- Shady sites, lots of room to move around.
- Very busy, often full with very large groups, lots of boat traffic.
- Poor beach quality. Very rocky. Enclosed cove for swimming.
- Very good boat tie-off at docks.
- Two toilets.
- Looks across to Spokane Reservation.
- Same distance to supplies as Ponderosa.

# Boating Regulations All boaters must know and

All boaters must know and follow applicable state and federal boating requirements, as well as carry all required equipment on their vessels. Copies of this information are available at visitor center and information stations and on the Lake Roosevelt NRA website. www.nps.gov/laro

#### **Enterprise**

- Four to five sites.
- Very nice, some more shady than others.
- Very busy, often full.
- · Excellent beach. Lots of sand.
- Challenging tie off. Beach approach is shallow. You are likely to get your feet wet.
- Three toilets.
- Very nice, undevelped area, on a quieter part of the lake.
   Moose have been seen swimming here. Mostly ponderosas on glacial lake sands.

This site is more remote, 30
minutes to an hour depending on
the speed of your boat to Two
Rivers, or 15 to 30 minutes to
Hunters (no supplies available at
Hunters campground.)

#### Plum Point

- Four sites.
- Picnic table, fire rings, tent area.
- Some large shade trees.
- · Two pit toilets.
- Nice sandy cove for boat camping.

# Penix • Th

- Pic
- OrSet
- 60
- Nic

# • On

- durMilited
- Thi

Phone reception: Cellular or digital on Lake Roosevelt. Make sure you te going and when you will be back be camping or boating adventure.

Emergency Assistance: When you from help is a liability. In the location from a major facility, emergency help hour away. You may want a marine rethat you can communicate better with

**Gas:** Some areas of the lake have a gon-water gas stations than others. Ke north supplier of gasoline you will fir

# **Lets Go For A**

Looking for a good place to swim a the day? Lake Roosevelt has severa beaches ranging from primitive wit developed areas with bathrooms a a list of our beaches and amenities

EvansXXXXMarcus Island *XXXKettle Falls *XXXXColville FlatsXXXBradbury BeachXXXCloverleafXXXXFort SpokaneXXXXKeller FerryXXXXSpring CanyonXXXXPorcupineXXXX						
Marcus Island *         X	Name	Toilets	Playground	Swim Dock	Picnic Tables	Picnic Shelter
Kettle Falls *XXXXColville FlatsXXBradbury BeachXXXCloverleafXXXFort SpokaneXXXXKeller FerryXXXXSpring CanyonXXXXPorcupineXXXX	Evans	Χ	Χ	Χ	Χ	
Colville Flats  Bradbury Beach X X X X  Cloverleaf X X X X  Fort Spokane X X X X X  Keller Ferry X X X X X  Spring Canyon X X X X X  Porcupine X X X X X	Marcus Island *	Χ		Χ	Х	
Bradbury BeachXXXXCloverleafXXXXFort SpokaneXXXXXKeller FerryXXXXXSpring CanyonXXXXXPorcupineXXXXX	Kettle Falls *	Х	Х	Χ	Х	X
Cloverleaf X X X X X X X X X X X X X X X X X X X	Colville Flats				Х	
Fort Spokane X X X X X X X X X X X X X X X X X X X	Bradbury Beach	Χ		Χ	Х	
Keller FerryXXXXSpring CanyonXXXXPorcupineXXXX	Cloverleaf	Х		Χ	Х	
Spring CanyonXXXXPorcupineXXXX	Fort Spokane	Χ	Χ	Χ	Х	Χ
Porcupine X X X X	Keller Ferry	Х	Х	Χ	Х	Х
	Spring Canyon	Χ	Χ	Χ	Х	Χ
Hunters X X X X X	Porcupine	Х	Χ	Χ	Χ	
	Hunters	Χ	Χ	Χ	Χ	X

\* May not have water when lake levels are lov

### **Summer Island**

- One pit toilet.
- Picnic tables.
- Fire rings.
- Long sandy beach.
- · Popular area for houseboats.
- · Several shaded areas.

features are located among the deeply scarred landscape of eastern Washington. SOITIE ITIE SIZE OF A SITIAII house.

Spokane River Valley and inundated another glacial lake, Lake Columbia. Lake

This area, composed of enormous, intertwining canyons, is appropriately named the Channeled Scablands.

Columbia had formed when another ice lobe had blocked the Columbia River where Grand Coulee Dam sits today. Lake Roosevelt, Washington's largest lake, is a much smaller version of Lake Columbia which was at least 500 feet deeper than Lake Roosevelt! The massive amounts of the dam of the d

At the end of the last ice age, North America's last continental ice sheet, the Cordilleran, extended its long "fingers" down several natural trenches reaching into the Pacific Northwest. One of these fingers dammed the Clark Fork River where it crosses today's Idaho-Montana border creating a mammoth lake. At its peak, the lake, which filled the river valley and many of its tributaries, had an estimated maximum depth of 2,100 feet-168 feet deeper than Crater Lake, the deepest lake in the United States today. It contained 500 cubic miles of water-half the amount of water in Lake Michigan and covered an area of 3,000 square miles-twice the size of Rhode Island.

water that entered Lake Columbia spilled over the southern walls of the canyon containing the lake and burst forth onto the expansive basaltic lava field that covered eastern Washington. New channels connected neighboring valleys as water sliced through the basalt that covered eastern Washington. When viewed on satellite imagery, this pattern of channels dividing and re-crossing looks like a braided river-only this braided river covers 3/4 of eastern Washington.

Such a colossal amount of water behind and below the ice dam forced it to eventually float and then burst into many gargantuan pieces. The water gushed from the lake at speeds of 50-60 miles per hour. The average rate of flow was at least 9.5 cubic miles per

The largest channel gashed into the fragile layers of basalt was the Grand Coulee, having carried the greatest amount of water. The Grand Coulee begins just south of the town of Grand Coulee and runs to Soap Lake. Today, it is 50 miles long and its walls stand one to six miles apart and rise 900 feet. At center stage was the world's largest waterfall, Dry Falls: so named because today no water tumbles over its rim. The falls divide the Grand Coulee into upper and lower halves. Dry Falls now stands 417 feet above the lower channel floor and is 3.5 miles wide. During the climax of the floods, the furious waters raging over the falls were at least 300 feet deep! The lower Grand Coulee was formed as the immense cutting power of the waters racing at speeds of up to 65 miles per hour dissected the basaltic plateau; and the falls, which originally were 21 miles to the south, retreated upstream. This same phenomenon is occurring today at Niagara Falls as the base of the falls is undercut.

To learn more about the most catastrophic floods of the past two million years, and the geologic mystery it created explore the many books and DVDs available for sale in any of the park's book stores.

> The water rushed into the Quincy Basin and with no other obstacles in its way, spread out over the large open expanse. The mighty waters had snatched huge boulders of basalt and granite from the bedrock

Check out our latest addition to the geology shelves. On the Trail of the Ice Age Floods by Bruce Bjornstad is a remarkable guide on how to read the landscape for clues on how the scablands of eastern Washington were created. Also available online at www.nps.gov/ laro

# Clear Cle

canyons, like the

over eons. The in

Scablands, with a

features, may have

cumulatively in ju

massive remnants

are evidence of t

immense floods \

giants.

Remember, from or abo required to marine sanit toilet), that bags to con waste must designated ( illegal to dis in dumpster

www.nps.gov/laro \_

Roosevelt National Recreation Area, forests generate various recreational opportunities such as fishing, hunting, hiking, bird watching, and camping. A functioning forest ecosystem is a source of ecological and environmental benefits including regulation of stream flows, maintenance of air and water quality, stabilization of soils and unstable slopes, fish and wildlife habitat, gene pools and collectors for carbon dioxide. Forests also have important cultural and spiritual values.

# Vegetation

Vegetation at Lake Roosevelt NRA includes at least three fire-prone ecosystems, these include steppe (semi-arid grassland), shrub/ steppe, and ponderosa pine forest. Fire plays a critical role in the health and maintenance of all three ecosystems. Frequent low intensity fires lessen the risk of extreme fire behavior in ponderosa pine ecosystems. Ponderosa pine forests are well adapted to frequent surface fires. The thick insulating bark of ponderosa pine enables it to survive low intensity surface fire. The characteristic ground cover in a ponderosa pine forest is a mix of grass, forbs, shrubs, and pine needles. Low intensity fires tend to burn the low woody shrubs, downed debris, and pine litter, thus releasing soil nutrients and creating a nutrient-rich seedbed for ponderosa pine seeds. The natural fire regime within ponderosa pine forest is one fire every 3 – 15 years.

# They Don't Work If You Don't Wear Them

Federal law states every person on board a boat must have a Personal Floatation Device (PFD or life jacket) that fits them and is in good condition. Washington State law requires children 12 years old and younger to wear PFDs when on boats less than 19 feet in length that are moving. Life jackets could have prevented approximately 2/3 of all boating-related drownings of children ages 14 and under.

Fires are also used to reduce hazard fuels. These are *prescribed fires*. Prescribed fire is the carefully planned, periodic burning of selected sites to meet a variety of management objectives.

Decades of fire suppression have resulted in the need for more active management to maintain healthy forests within Lake Roosevelt NRA.

Approximately 2,000 acres will be treated with prescribed fire and/or mechanically thinned over the next five years within the recreation area. Each burn unit will have its own burn plan that includes measurable objectives, conditions, and specific actions under which burns will occur. Trained personnel burn only when conditions are optimum.

By removing accumulations of fuels using low intensity prescribed fire, managers reduce the chance that high intensity wild-fires will develop on the forest floor and spread into the tree crowns, and/or spread onto adjacent lands.

Adjacent land owners are encouraged to work with the State Department of Natural Resources to develop neighborhood fire management plans that may include prescribed burning or mechanical thinning by trained professionals. Many homeowner associations across the country are developing *firewise* community action plans in cooperation with national park and forest areas.

# Mechanical Thinning

Mechanical thinning will be used in conjunction with prescribed burning or as a technique of its own depending on the management zone. Mechanical thinning is the manual removal of vegetation to accomplish any of the following objectives:

- 1) reduce fuel buildup in the understory prior to a prescribed fire treatment,
- 2) provide defensible space near structures, developed zones, and adjacent lands,
- 3) remove hazardous fuels including diseased/ insect infested trees, and around bald

beauty and unde Roosevelt has to son, we are seeir as summer, famil along land adjace boundary.

With the heavy f over the years be could take just a match, or a light intensity and seve

# Being Fire Res

# **Being Firewise**

- May 1 to Noven fire rings provided
- Keep water and a fire. Keep all burn and all unused fire
- Never leave a fire are dead and out
- Never throw a cig erly dispose of cig they are complete
- Use caution wher devices like camp
- Be sure children k and don't let ther
- Carry a fire exting

# Being Firewise

- Plan for 10 feet of your home that is pine needles and of and other collection
   Prune low branches
- Clear 10 ft. away fireproof screens a prevent ash and p
- Attachments to your porches or fences
- Ensure your addrest gency vehicles to 12ft. wide with a
- Discuss with your meeting place. Po phone. Be sure ch

### More Fire Inform

To learn more abou ment and Forest He Chief of Compliance & Natural Resource 509-633-9441 x128 Thompson, this was the Columbia River that runs north for only 200 miles before making a hairpin turn to the south. Exploration, however, had to take a back seat to survival. The group was low on food and they needed to start hunting and building a place to trade for furs and food.

By July 18th one canoe had been completed and Thompson and a scouting party went south in search of food and a place to build a trading house. Arriving at what is now Windermere Lake they found berries to eat and grass for the horses. Thompson decided to establish Kootanae House there. After completing one building, however, Kootenai Indians arrived and counseled Thompson to move to a safer place a mile down stream from the mouth of the lake. As the summer dragged on, food was still scarce and Thompson worried for his group, especially the children.

If near starving conditions didn't push the group to finish the trading post, the August 13<sup>th</sup> arrival of Kootenais did. They told of peace parley gone bad between them and the Peigans, Bloods, and Blackfeet. The peace talks had led to the death of a Kootenai chief, several Flatheads and a dozen Piegans.

Toward the end of August, relief arrived in the form of the summer salmon run and the stockade around the trading post was finished. There was no time to relax though. Piegans from the east side of the Rockies were now making regular visits to the post to make their presence known and to keep tabs on both the traders and Kootenais.

When a friendly group of Flat Bows arrived to trade fur they also shared information that excited Thompson. They gave a description of their country and how going to the sea from there and back took a "voyage of a summer moon." The explorer in Thompson wanted to chart this new territory, but he needed a guide.

It had been several months since Thompson had been able to devote any time to exploration but in September of 1807, as

flowing river (Kootenay River) At the time Thompson was unaware he had been at the headwaters of the Columbia River.

Once back at the trading post the group spent most of the fall prepping for an attack. The Blackfeet, Bloods, and Piegans on east side of the Rockies were not happy that Kootenais were supplying eastside Flatheads with weapons or that Thompson's group was trading with westside Indians. They were able to rest easier as the December snows arrived and kept any war parties from crossing the passes. Thompson spent the winter reworking his field notes and calculations and was able to copy Capt Lewis' letter recounting his journey to the Pacific Ocean into his journal. It is still a mystery as to how Thompson got a copy of the letter, but however he obtained it, it gave him the important information that the Columbia River was is navigable from the Snake River to the Ocean.

By mid-April of 1808, Thompson was anxious to continue his quest for the Columbia River. Ugly Head offered to be his guide again and they set off on the same route as the previous fall, only going farther Man courtesy of Sources of the River, by Jack Map coutesy of Sources of the River, by Jack Wisbell. Sasquatch Bboks, 1998, Thompson crossed the 49th parallel and by early May, after a difficult portage around Kootenai Falls, reached the outskirts of Kootenay Lake. Reviewing his calculations he realized the river had taken a sharp U turn and he had once again crossed the 49th parallel. He was only 50 miles from the lake's outlet to the Columbia River, but he was forced to cut his exploration short in order to attend to business. The quest to find a navigable river to the ocean would once again, have to wait.

To learn more ab to see what happ Nisbet's two boo River: Tracking Da ern North Americ David Thompson or D'Arcy Jenish's ompson and the West. All three a bookstores.

# Safeguard

Artifacts within Roosevelt Natio any known arch tected under th sources Protecti gal to disturb, c archaeological o archaeological of the park, please are and report t tions as soon as or volunteer. Al object, no matt may appear, co ing a door to th ing our lives.

Lake Roosevelt is definitely for more than just camping, swimmir

Grand Coulee Dam Area: In addition to the Visitor Center for the dam, there is also the Colville Tribal Museum. Located on the other side of the river from the dam visitor center, the museum is run by the 12 tribes of the Confederated Tribes of the Colville Reservation. It has numerous, well-done exhibits telling the story of the peoples who make up the reservation. Locally-made beaded gauntlets, woven baskets, clothing, and tools are all on display, including a fantastic life-size diorama of salmon fishing. Museum docents are happy to talk with you about tribal stories. You can see pictures of tribal elders from days gone by and read about how tribal life struggled after the dam was built. To reach the museum, cross the highway bridge and head straight up the hill and you'll see the museum. 512 Mead Way, Coulee Dam.

Fort Spokane Area: Take a step back in time to learn about the difficulties of frontier life. Wheat farming is a pretty routine task these days, but during the Great Depression, it wasn't so easy. Twenty-two miles south of Fort Spokane in downtown Davenport is the Lincoln County Historical Museum, just look for the road signs on Highway 2. They feature a variety of exhibits that explain local life during the difficult

Want to learn more about David Thompson's trip down the Columbia River? Do you need to know about walleye fishing? Perhaps you need a boating map for Lake Roosevelt. Maybe you just want a souvenir from your trip to Lake Roosevelt. Well, our bookstores have what you are looking for. Lake Roosevelt's bookstores have a unique selection of books, gifts and toys, specializing in subjects related to the park.

Come discover the mysteries of the Missoula Floods, geology, and the ice age.

Travel down the river with David Thompson. Learn about the Native Americans who have Continued from page 3

### **Special Requests**

Have a special need or an event? Just ask, we might be able to help. Ranger–led activities for students in the field, the classroom and at Lake Roosevelt National Recreation Area focus on a variety themes: geology (Ice Age Floods), habitat, ecology, water quality, shrub –steppe, the fur trade and David Thompson, Fort Spokane and 9000 Years of Human History around the lake. These programs are designed to help teachers meet Washington State Grade Level Expectations and the Essential Academic Learning Requirements.

## **Traveling Trunks and Kits**

Scultped, Scoured and Scraped: An Eastern Washington Geology Experience

3rd-6th Grades

Lake Roosevelt boasts some of the most interesting geology in the state of Washington. Starting 17 million years ago, sheets of volcanic lava flowed from giant cracks in the earth near the Washington/Oregon/Idaho border and covered eastern Washington. Ice

Age glaciers cover part of Washington the Columbia, for such giant lake, of Montana, rupture leashed some of mankind has ever eastern Washington

This trunk illustration forces that have so in the past and conscious scape today. The visual aids, rock so well as a curriculative geologic procoff eastern Washington.

**Avian Mystery I**See description o

### **Printed Materia**

"A Cultural Cros Teacher's Guide" mation, standard activities about a military, Indian b losis hospital. C Specialist to obta

# Learn More! Read a Book!

called this river home for nearly 9000 years, the construction of the dam, or the history of the National Park Service.

Use one of our many bird books to figure out what that bird was, or what wildlife you can find in the area.

Our coloring books can keep the kids entertained while teaching them about birds, animals, Native Americans and Lewis and Clark.

We have **charts**, **waterproof maps**, post-cards, stickers, and much, much more.

Through a co-ope National Park Ser pretive Association the park's visitor The nonprofit orgonal transfer in making tional publication also funds special park.

Bookstores are lo in Coulee Dam, S Station, Fort Spo Kettle Falls Inform for hours and cou on the web at: w www.rrenouseboats.com

# **SEVEN BAYS**

- Marina store: groceries, ice, fishing licenses.
- Full-service restaurant.
- Houseboat, boat and boat slip rentals.
- Boat fuel dock, boat dump station (free to all boaters).
- Fresh water during summer months.
- Campground with hookups and water, showers, restrooms, and coin-operated laundry facilities nearby.

## Hours:

### Store and fuel dock

- May 15–May 25 and September 4– October 15, 9 a.m.–6 p.m.
- Memorial Day weekend–Labor Day weekend, 8 a.m.–8 p.m. daily.

### Restaurant:

- Memorial Day weekend–Labor Day weekend, 11 a.m.–8 p.m.
- Closed Monday–Friday

### Operated by:

Dakota Columbia Rentals, LLC 1250 Marina Drive Seven Bays, WA 99122 Phone: 509-725-7229

www.dakotacolumbia.com

# TWO RIVERS

- Marina store: groceries, ice fishing licenses.
- Full service restaurant.
- Boat slip rentals.
- Boat fuel dock, boat dump station (free to all boaters).
- Fresh water during summer months.
- Campground with hookups and water, showers, restrooms, and coin-operated laundry facilities nearby.
- Gas station and convenience store with a deli.

**Hours**: June 1 - September 7 **Marina** 

• 7:30 a.m. to 7:30 p.m., daily.

- Gas station with propane.
- Picnic tables.

#### Hours:

7 a.m. to 7 p.m., daily.

### Operated by:

Sherri Scott and Bill Barrett 2990 Highway 25 So Rice, WA 99167 509.738.6166

# **KETTLE FALLS**

- Marina store: deli, ice, fishing licenses.
- Houseboat, runabout, kayak rentals.
- Covered or open boat slips. Secured dock—seasonal or short-term moorage.
- Boat fuel dock, boat dump station (free to all boaters).
- Propane available.
- Campground and restrooms nearby.

#### Hours:

- Memorial Day–June 30, 8 a.m. to 6 p.m.
- July 1–Labor Day weekend, 8 a.m.–7 p.m.
- After Labor Day–October , 8 a.m.– 6 p.m.
- After season hours, please call 509.738.6121 for service by appointment.

### Operated by:

Lake Roosevelt Resort and Marina P.O. Box 340 Kettle Falls, WA 99141 509.738.6121 or 800 635.7585 E-mail:

houseboats@lakeroosevelt.com or www.lakeroosevelt.com

Fish & Wildlife: 509.634.2110

Spokane Indian Tribal Park Ra lice: 911

For EMERGENCIES in the park a cell phone you must tell the where you are as they may be

# A comparison of regularization managing partners of

### Regulation

Loaded firearms, permitted in campgrounds, picnic areas or on beaches

Children under 14 required to hold fishing per when accompanied by licensed adult

State fishing license required while fishing fro boat

Pets permitted off leash in developed beache picnic areas

Pets permitted ON leash in developed beache picnic areas

Roadside camping permitted outside of develor campgrounds

Length of stay in campgrounds limited

Camping requires reservations

Payment of overnight fee required at boat-in road accessed) campgrounds

Fires permitted in designated fire grates in developed campgrounds \*\*

Fires permitted in undeveloped boat-in camps
\*\*

Permit required for fires built at boat-in campo

Fireworks permitted \*\*

Boat launch permit required (with fee)

Lawfully taken, properly tagged wildlife may transported through area

Driving motor vehicles on beaches or seasona exposed lakebed

Digging or using metal detectors permitted

- \* Campsites in select campgrounds m for details.
- \*\* Check seasonal restrictions

For more information about the regul vations, please contact them directly: Colville Confederated Tribal Police: 80 Spokane Indian Tribal Park Rangers: 5